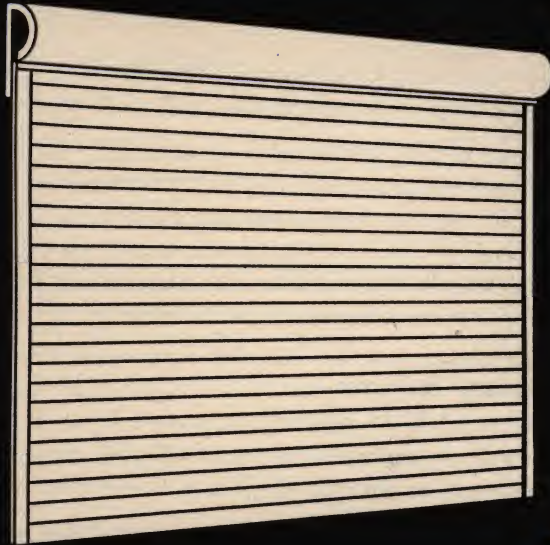
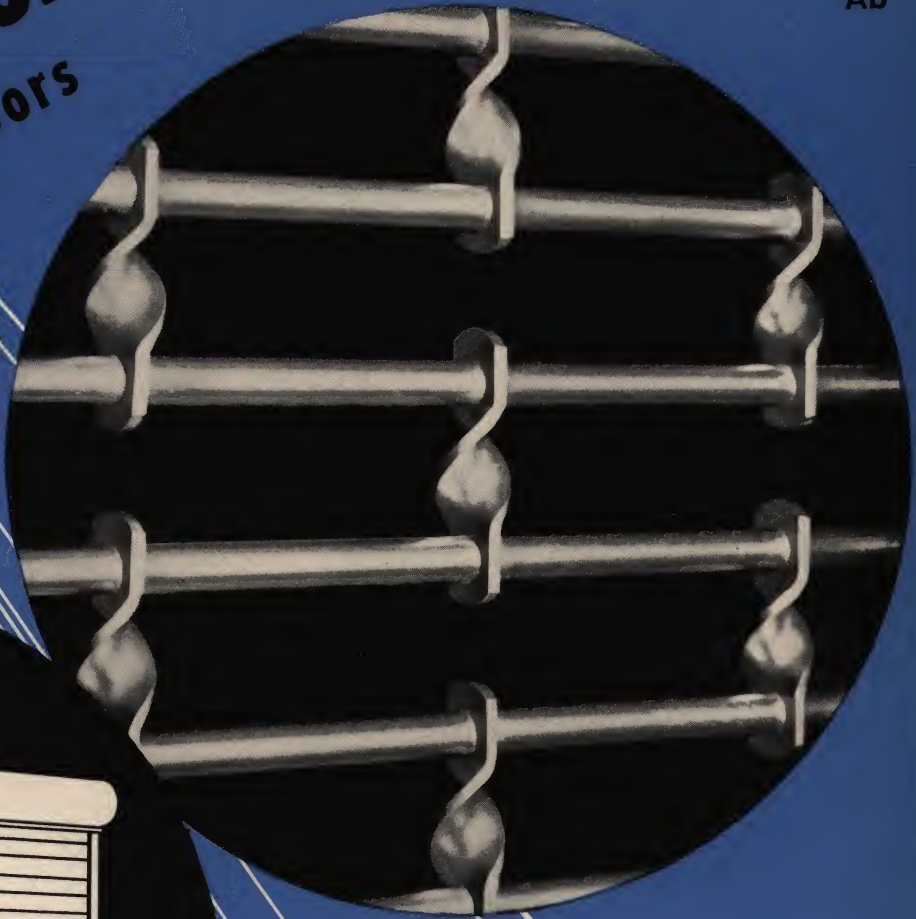


ABBOTSFORD

rolling doors

16g
Ab



grilles shutters pass windows fire doors
hatch & stairwell covers

ABBOTSFORD STANDARD ROLLING DOORS

● rolling metal doors



Large, electrically operated pitched rolling doors at dump station, Municipal Waste Disposal Plant, Philadelphia, Pa.



36'-0" wide Abbottsford Electrically Operated rolling door on stage in famous high school auditorium. Acoustically treated, is largest all aluminum rolling doors ever used for this purpose.



When inside headroom is insufficient, Abbottsford outside mounted rolling doors, thru-wall driven, enhance building lines and afford maximum headroom. Door above closes on sloping sill.



A total of 203 large Abbottsford doors installed at Supply and Service Base.

Abbottsford rolling metal doors and grilles are constructed of formed metal sections continuously interlocked and hinged to permit coiling and concealment in a protected and space-saving location under or over the top of the ceiling or doorway.

Rolling doors offer unsurpassed features that give maximum protection against unauthorized entry, fire and damage by vehicles. Full floor space can be utilized to within a few inches of the doorway. Deterioration of the doors is minimized by the heavy all-steel construction. Complete versatility of mounting and operation is available.

Perfect counterbalancing is achieved by pre-tested heavy-duty helical springs contained within the coil overhead with provisions for easy adjustment of spring tension. The doors and balancing mechanism all turn on self-aligning lubricated for life bearings, ensuring permanence and ease of operation.

Galvanizing is hot applied 1.25 oz. thickness on slats. Built-in pass doors are available. Doors can be mounted with grilles in pairs on the same opening, on the same side or opposite sides of the opening.

Choice of metal and slat design widens the range of individual selection to suit all types of buildings and conditions.

All standard metals, galvanized steel, aluminum, stainless steel or bronze, and the new special ALUMINIZED steel are available for doors or shutters. Two factories in Long Island City, N.Y. and Birmingham, Ala., are strategically located for fast service. Permanent records of every door manufactured are kept at the factory for lifetime reference for replacement parts.

engineering features

(Specifications and special equipment are on page 7.)

- 1 Door entirely supported by structural steel angles running continuous from floor to top of coil to minimize wall load.
- 2 Counterbalancing helical springs are supplied with high overload safety factor.
- 3 Bearings—grease sealed flange self-aligning units rated for high speed duty.
- 4 All manual operated doors have standard pre-arrangement for future motor operation.
- 5 All doors have standard pre-arrangement for lucite or plexiglass vision windows.
- 6 Pass doors can be provided for any type door including those electrically operated.
- 7 Hinged or sliding or removable mullions can be provided for wide openings to divide it into smaller units and still maintain the full width unobstructed.
- 8 Doors can be operated parallel to the floor (see page 6) or at pitched angles (see photo above).

● rolling metal fire doors (automatic closing)

Abbotsford factory inspected rolling metal fire doors are constructed in strict accordance with Underwriter Laboratories requirements. They can be opened or closed and used independently of automatic action.

Abbotsford rolling metal fire doors are used on fire wall door openings to limit fire spread by confining the flames to the room where the fire originates. Installation of fire doors are made to conform to building codes and to effect favorable insurance rates. Types of operation include handle lift, hand crank, and gear and chain. Automatic closing with electrical operation is also available in Underwriters construction, although no label or Certificate of Inspection is issued for this type operation.

Abbotsford rolling metal fire doors close automatically from any position upon melting of equipped interlocked fusible links which part when the temperature reaches 160°F. Downward descent of the door is controlled by a governor as a precaution against accidents and re-setting of the actuating mechanism is easily accomplished after automatic closing of the door for testing or actual fire use.

Underwriter Laboratories label rolling steel fire doors as follows:

Class A to withstand 3 hr. fire exposure on interior fire walls.

Class B to withstand 1½ hr. fire exposure on vertical shafts.

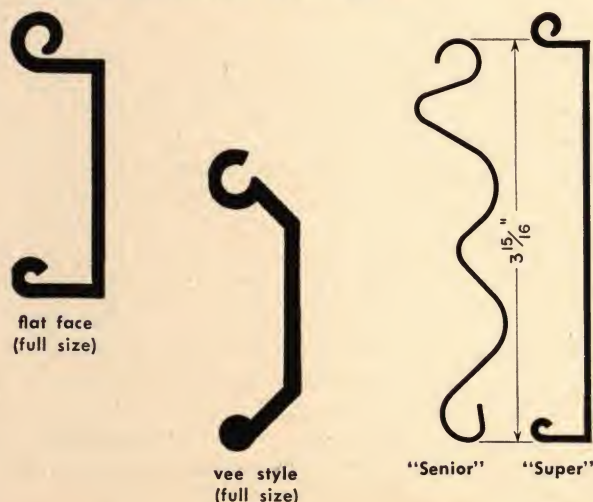
Class C to withstand ¾ hr. on corridor and partition wall.

Class D to withstand 1½ hr. for exterior fire wall.

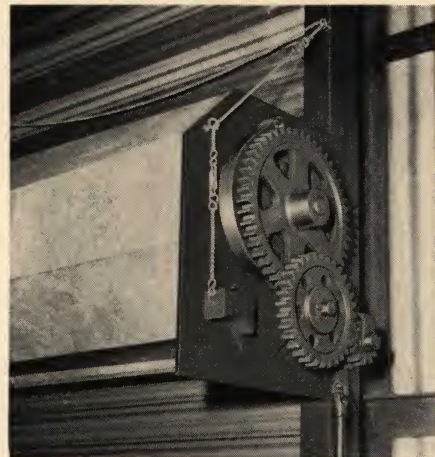
Limiting dimensions for above labeled doors are 120 sq. ft. in area and with no dimension (height or width) exceeding 12 ft.

For openings larger than 120 sq. ft. the Underwriter Laboratories will issue a Certificate of Inspection for Oversize Fire Doors for openings up to 24 x 24 ft. Oversize fire doors can be furnished with any type operation, but Handle Lift is not recommended for openings over 120 sq. ft. in area.

● door & shutter slat types

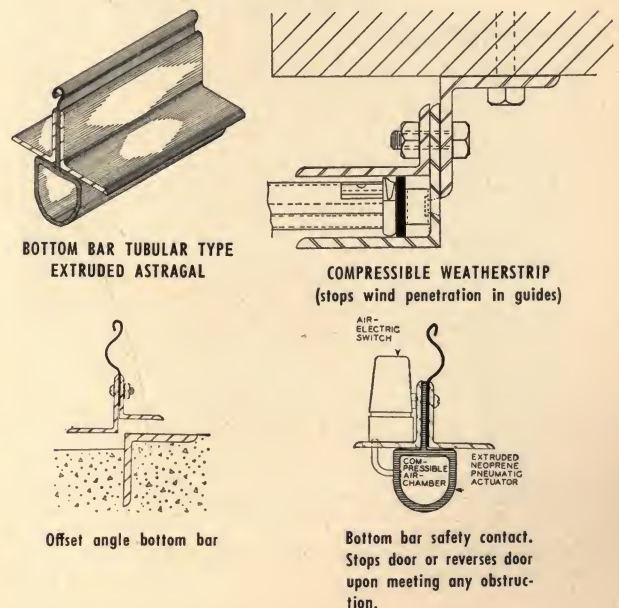


Chain gear operation



Hand crank operation

● special rolling door equipment below (furnished at extra cost)



ABBOTSFORD ROLLING GRILLES

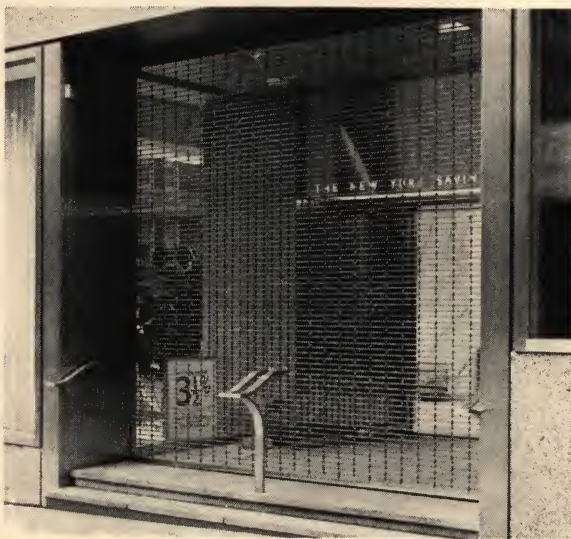
● flexible rolling grilles



24'-0" x 16'-0" electrically operated stainless steel grille at Preferred Insurance Company's new offices, Grand Rapids, Michigan. Grille disappears into ceiling when fully opened. Skidmore, Owings & Merrill, Archts., Chicago, Ill.



Abbotsford grilles in Wheatly Hills H.S., L.I.
Alfred Hopkins Assoc., La Pierre, Litchfield & Partners, Architects



Electrically operated stainless steel rolling grille at New York Savings Bank, New York City. John Weber, Archt.

Abbotsford flexible rolling grilles are available up to 40 ft. wide and are constructed according to the same counterbalance principles as Abbotsford rolling doors. By combining utility with good decorative taste, Abbotsford grilles have obsoleted old-fashioned designs and methods of construction while increasing sturdiness and all around durability. The gracefully attractive patterns are without reverse side differences. No rivets or riveting, no screws, welds or other breakable fastenings are employed to assemble the hand woven curtains which are among the heaviest on the market due to the close $1\frac{3}{16}$ " spacings between horizontal members.

All Abbotsford grille curtains are free from sag and unbreakable to insure permanence of operation and function.

Specify Abbotsford rolling grilles for all locations requiring egress or entrance with maximum vision and free passage of light and air. School corridors, store fronts, bank drive in, lobbies, stairways, bars and service counters are all enhanced when partitioned with Abbotsford rolling grilles. In addition, fixed grilles of the same pattern can be provided to fill adjacent unused areas.

Engineering features and balance of rolling grilles are the same as for Abbotsford rolling doors. Guides can be fully recessed. Soffits are removable. Grille can be arranged to lock by padlock in both open and closed position. Cylinder locking is available. All locks are accessible from both sides. Abbotsford locks are not unsightly, but blend attractively with the pattern of the grille.

Concealed or visible motor operation can be applied to any grille for any type of opening construction either at the side, in front, in back, or on top of the grille coil. Grilles will disappear into suspended ceilings where provided. (Specifications on page 7.)

partial list of installations includes:

U. S. Naval Academy, Annapolis, Md.
Walt Whitman High School, Huntington, L.I., N.Y.
E. I. DuPont de Nemours & Co., Wilmington, Del.
Federal Reserve Bank, Houston, Tex.
Randolph Monroe Parking Garage, Detroit, Mich.
Midland National Bank, Billings, Montana
Orange Bowl, Miami, Florida
S. S. Aquarama
Atlantic National Bank, West Palm Beach, Fla.
St. Louis Park Sr. H. S., St. Louis Park, Minn.
First Federal Savings & Loan Assoc., San Antonio, Tex.
The Essex House, New York City, N.Y.
Peerless Camera Stores, Philadelphia & Pittsburgh

grille link styles



"BEAUFORD"
standard design
wrought in all metals

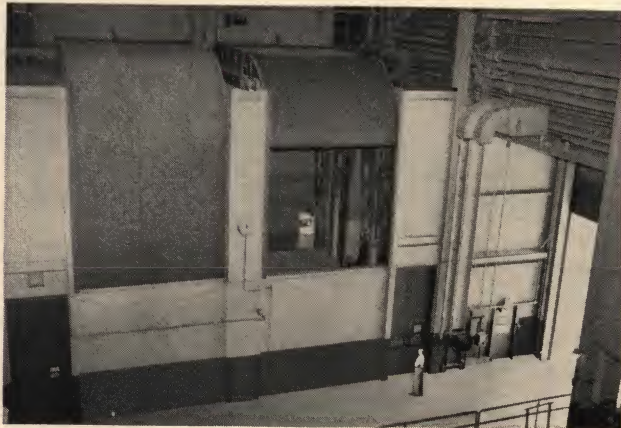


"BRADFORD"
furnished in cast aluminum and bronze only
other designs available on request

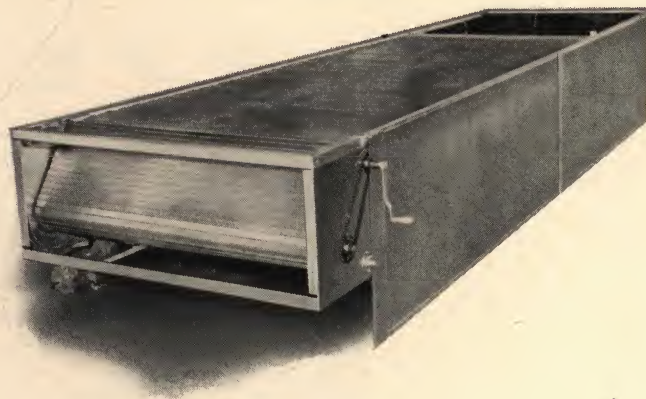


"BERESFORD"

● rolling tank, hatch and stairwell covers



Double hatchway covers motor operated



Rolling tank cover motor or hand crank operated

● electric door and grille operators

Choice of an electric rolling door operator should be carefully made and final selection should reflect an emphasis on a unit designed to give uninterrupted duty under all conditions. Abbotsford electric operators are heavy duty, high torque, Class A insulated crane and hoist duty motors with integral gear heads continuously submerged in an oil bath. Moving parts are kept at an absolute minimum, resulting in a mechanism thoroughly designed to give years of rugged service. No V-belts or light-duty motors are used. Starters have overload and undervoltage protection. Safety switches are integral with the manual operator to automatically shut off current when the hand operator is in use. Limit switches are not affected by removal of the motor, and all models have emergency hand operation devices, operable from the floor. Drive is by noiseless roller chain. Motors can be

rolling hatchway covers

Abbotsford rolling hatchway covers are constructed to roll horizontally and vertically in combination for simultaneous open top and open end closing. Pictured at left are 15 ft. wide by 40 ft. long electrically operated hatchway covers in the Re-actor Building at the first Atomic Power Plant, Duquesne Electric Company, Shippingport, Pa. These hatchway covers illustrate the contribution of Abbotsford engineers to the solving of problems in modern Atomic Plant designing.

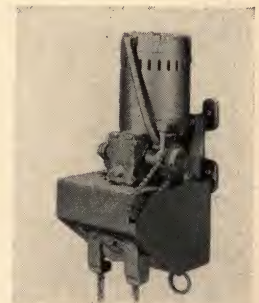
rolling tank covers

Abbotsford rolling tank covers are constructed for application to degreasing or processing tanks or any tank requiring a roll-up protective closure which can be opened or closed by hand crank or electric motor. These horizontally rolling units can be furnished in galvanized steel or stainless, or any non-ferrous metal required for corrosive conditions. They are easily attached to existing tanks and occupy approximately 30" of back room. Tank lengths up to 40' long can be accommodated.

rolling stairwell covers

Abbotsford rolling stairwell covers over moving stairs are available as closures either operated by hand crank or electric motor. The latter type can be equipped with heat or smoke activating devices and made to stop, dead stop and continue, or dead stop and reverse direction of travel. Moving stairways are especially adaptable for this type of protection. They offer fire protection between floors in department stores and public buildings, etc.

mounted in any position in relation to the coil, either at the end, back or front, or on top in the event obstructions occur at the standard end position. They can be mounted completely concealed in suspended ceilings if required. Motors and controls are also available for hazardous locations, in explosion-proof housings or for chemical atmospheres. Horsepower ratings used have capacity plus large overload factor. Specify Abbotsford operators for lifetime performance and durability.



● pass windows and shutters roll-up and slide-up package units

Abbotsford roll-up and slide-up packaged pass windows and shutters offer a complete range of selection to suit all conditions where a functional and decorative closure is required for school kitchens or soiled dish windows, in cafeterias, for ticket or service windows, tool cribs, newsstands and counter openings of all types as well as down to the floor applications.

Expertly designed for perfect operation, they are pre-tested at the factory and swiftly installed with installation time reduced from a full day on some types to within a few minutes. Abbotsford packaged pass windows and shutters are available in the following types:

Type SBF—Furnished in aluminum, stainless steel, galvanized steel, aluminized steel, bronze or monel. Rolls up inside an integral stainless steel or aluminum frame with trim, tracks and head supports incorporated in the frame. The frame corners are welded and smooth ground and then polished to a #4 finish. The frame is bricked in the wall. At any later date the roll-up curtain can be installed in minutes when needed, to prevent soiling while the job is in progress.

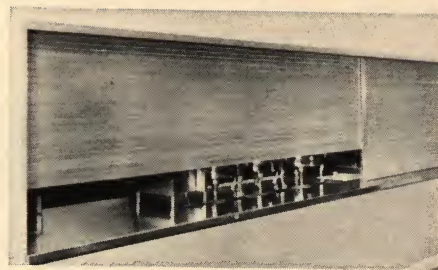
Type SF—Furnished as a roll-up packaged unit in all metals as in Type SBF above, but *without a frame* for face of wall installations to straight masonry or on existing frames or plain or trimmed openings. Standard size roll-up windows occupy only an 8" to 10" square space when fully coiled and are furnished push-up operated as well as hand crank operated up to 20 ft. wide. Easy accessibility for tension adjustment is provided.

Type SB—The same as Type SF except it is designed for installation between the jambs of the opening instead of on the face of the wall. When installed between jambs the clear height of the masonry opening is reduced by 8" or 10" required to accommodate the coil box.

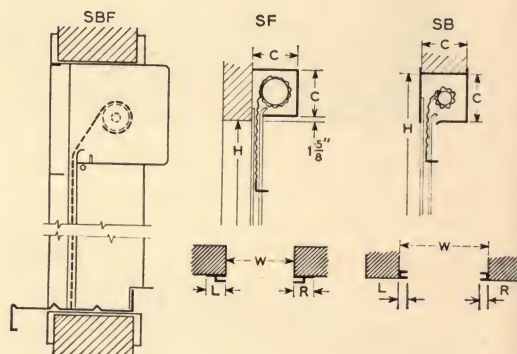
Type SSU—Single panel stainless steel pass windows (which are completely filled with fireproof asbestos acoustical filler) sliding vertically in stainless steel frames and housings. These units are equipped with fusible links for automatic closing during kitchen fires. Completely self-contained, they operate by stainless steel cables riding over ball-bearing nylon sheaves attached to concealed counterweights. Jambs are raised off the dish table for easy and complete sanitary maintenance. A concealed neoprene gasket edges the bottom of the moving panel. These units have incomparable installation features. No bolts or screws are required. They can be installed and removed without tools with resulting savings. Rough masonry openings are concealed and enhanced by the frame.

Type DSU—Same as Type SSU above except two or more units are installed side by side and share a common mullion between pairs or sets. Ideal for laboratories and all types of counter service.

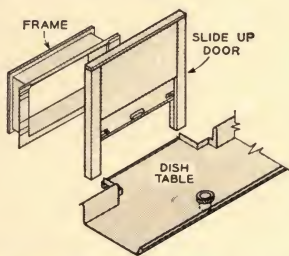
For more details and descriptions, a four-page brochure is available upon request.



Rolling aluminum shutter Type S at Westinghouse Electric Co. cafeteria. Center mullion is removable for 40 ft. clear opening.



exploded view



Slide-Up Pass windows. Note sanitary raised jambs. Dish Tables are not included but can be supplied as an extra to any width.



Rolling aluminum shutter in stainless steel frame Type SBF. Surrounds are framed and trimmed and opening closed with single integral unit, installed in minutes.

specifications

slide-up pass windows

A. Pass windows shall be of sizes as shown on drawings, completely assembled with stainless steel guides, integral frame and trim. Door panels, jambs and head shall be constructed of not less than #16 gauge stainless steel.

B. Door panel shall be of hollow metal construction, approximately 1 1/8" thick, consisting of two (2) thicknesses of #18 gauge stainless steel sheets, completely filled with fire-proof asbestos acoustical filler. Door and guides shall be of removable type, secured to buck frame, furnished with offset band brackets, welded to vertical balance housing. Door panel, riding in stainless steel guides, shall be connected by stainless steel cable, running over ball bearing sheaves to door counter weight boxes. A cable plate shall be provided on kitchen side, covering space between guides and sheave housing.

C. Pass window shall set 4" above table top and shall not require table top as a means of support for vertical housing. Slide-up door shall be equipped with a neoprene concealed, sealing gasket. Pass windows shall be furnished with approved types of fusible links, attached to counterbalance cable. Windows shall be accessible for service by means of removable slide plates, as well as removable top cable plate. Pass window doors shall be equipped with bar type lift and barrel type slide bolts for locking arrangement.

D. Pass windows shall be as manufactured by The Abbotsford Company, Inc., of Long Island City, N.Y., or approved equal.

CHART "SB"

W	H	L	R	C
To 20'	3'	1 1/2"	1 1/2"	8"
To 20'	3'-6"	1 1/2"	1 1/2"	9"
To 20'	4'	1 1/2"	1 1/2"	10"
To 20'	4'-6"	1 1/2"	1 1/2"	10"
To 20'	over 5'	1 1/2"	1 1/2"	12"

CHART "SF"

W	H	L	R	C
To 20'	3'	2 1/2"	2 1/2"	8"
To 20'	3'-6"	2 1/2"	2 1/2"	9"
To 20'	4'	2 1/2"	2 1/2"	10"
To 20'	4'-6"	2 1/2"	2 1/2"	10"
To 20'	over 5'	2 1/2"	2 1/2"	12"

SPECIFICATIONS

rolling doors

Curtains shall be contoured, cold-rolled, galvanized (or as specified metal) sections, 1.25 oz. thickness hot applied zinc coating, not less than 22 gauge U.S.S. thickness, and interlocking on $3\frac{3}{8}$ " centers. Any section is to be easily removable for repair or replacement.

Curtain is to be aligned and secured against lateral movement by heavy malleable iron-end-castings, riveted to each alternate section by tinned-steel rivets and shall resist a minimum wind load of 40 lbs. per sq. ft.

Windlocks shall be provided on all doors 16 ft. and wider.

Balancing mechanism shall be oil tempered heavy duty steel springs, grease-sealed in steel pipe at least 4" in diameter. Spring tension shall be adjustable at all times and shall turn on life lubricated bearings or graphite bronze bushings.

Guides shall be at least $\frac{3}{8}$ " structural steel angles for doors and $\frac{1}{8}$ " for shutters. The wall angle shall be continuous over the top of the opening and shall fasten to and support the plate coil brackets, in order to distribute the load over the wall area.

Brackets shall be rolled-steel plate, attached to guide-angles. Bracket bearing shall be self-aligning grease sealed for life.

Gears shall be high grade gray iron, cast from machine-cut patterns. Hand chain shall be hot galvanized.

Hoods shall be 24 gauge galvanized steel with reinforced beads and edges for maximum rigidity.

Finish shall be one shop coat of metallic paint on all uncoated steel surfaces.

GUARANTEE shall be for a one year period against defective materials or workmanship.

rolling grilles

Curtain shall be of woven fabrication throughout and no rivets, screws, welding or other fastenings subject to breakage shall be used in its construction. The curtain shall be free from sag at all times.

Curtain horizontal members shall be full hard tempered round galvanized rods encased in galvanized steel tubing (or aluminum if specified), all not less than $\frac{3}{8}$ " in diameter. The space between rods shall not be more than $1\frac{3}{8}$ ".

Curtain connecting links between horizontal members shall be not less than $\frac{1}{8}$ " x $\frac{3}{4}$ " galvanized steel (or aluminum, stainless, etc.), spaced to maintain a minimum of 8 links per sq. ft. The link pattern shall be Abbotsford "Beauford" and shall be identical when viewed from either side (or "Bradford, or Beresford" as required).

Horizontal member ends shall be aligned and connected by continuous stamped wrought iron links to coil grille in alignment. End connections shall be stainless steel.

Guides shall be 14 gauge steel box channel type with leading edges in bent to seal grille against lateral ejection.

Balancing mechanism shall be oil tempered heavy duty steel springs, grease sealed in steel pipe of at least 4" in diameter. Spring tension shall be adjustable and shall fasten to a power shaft of cold rolled steel, turning on lubricated for life ball bearings, ball or roller type.

Brackets shall be rolled steel plate attached to guide members. Bracket bearings shall be self-aligning grease sealed for life ball bearing.

Hoods shall be 24 gauge galvanized steel (or aluminum, stainless, etc.) contoured to fit brackets and shall fully enclose coil of the grille.

Soffits shall be 24 gauge galvanized steel (or aluminum if specified). Soffits shall be removable on suspended ceiling applications.

Locking shall be by means of round retractable rods, located $3\frac{1}{2}$ " above the floor and locked by padlock (or cylinder lock if specified), accessible from both sides of the grille. Alternate locking shall be to lock grille in open and closed position by padlock and accessible from either side.

Finish on all uncoated steel surfaces shall be one shop coat of sprayed aluminum paint.

GUARANTEE shall be for one year period against defective materials or workmanship.

**16g
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rolling steel fire doors

Doors shall be Abbotsford Steel Rolling Automatic fire doors labeled by the Underwriters Laboratories, Inc.

Doors shall close automatically upon separation of equipped fusible links at 160° F. Downward descent of the door shall be controlled by an escapement governor.

Doors which are less than 8'-6" high, or do not exceed 80 sq. ft. in area shall be handle lift operated. Larger doors shall be gear chain or crank operation.

Balancing mechanism shall be oil tempered steel helical springs contained in structural steel pipe housings. Balancing mechanism shall have sufficient power to operate the door after automatic closing.

Brackets shall be rolled steel plate $5/16$ " thickness and guides shall be $3/16$ " minimum thickness. Fastening holes shall be slotted for expansion. Curtain slats shall be 20 gauge steel with 1.25 oz. hot galvanizing. Curtain bottom bars shall be two steel angles back to back.

Hoods and flame baffles shall be 24 ga. galvanized.

Guarantee shall be for one year from date of acceptance by architect.

roll-up pass windows and shutters

Curtain—Shall be Abbotsford Junior slats, .050 thickness extruded aluminum (or other specified metal) with depth crown not less than full $\frac{1}{2}$ " and width not more than $1\frac{1}{4}$ ".

Balancing—Shall be by oil-tempered helical springs encased in standard 4" pipe. Deflection shall not exceed .03" per foot of width. Spring mechanism shall be adjustable on all shutters.

Bearings—Shall be lubricated for life, bronze or ball bearings. Guides—Shall be of extruded aluminum $\frac{1}{8}$ " thickness minimum.

Bottom bar—Shall be of extruded aluminum $\frac{1}{8}$ " thickness minimum, with continuous full width lifting device.

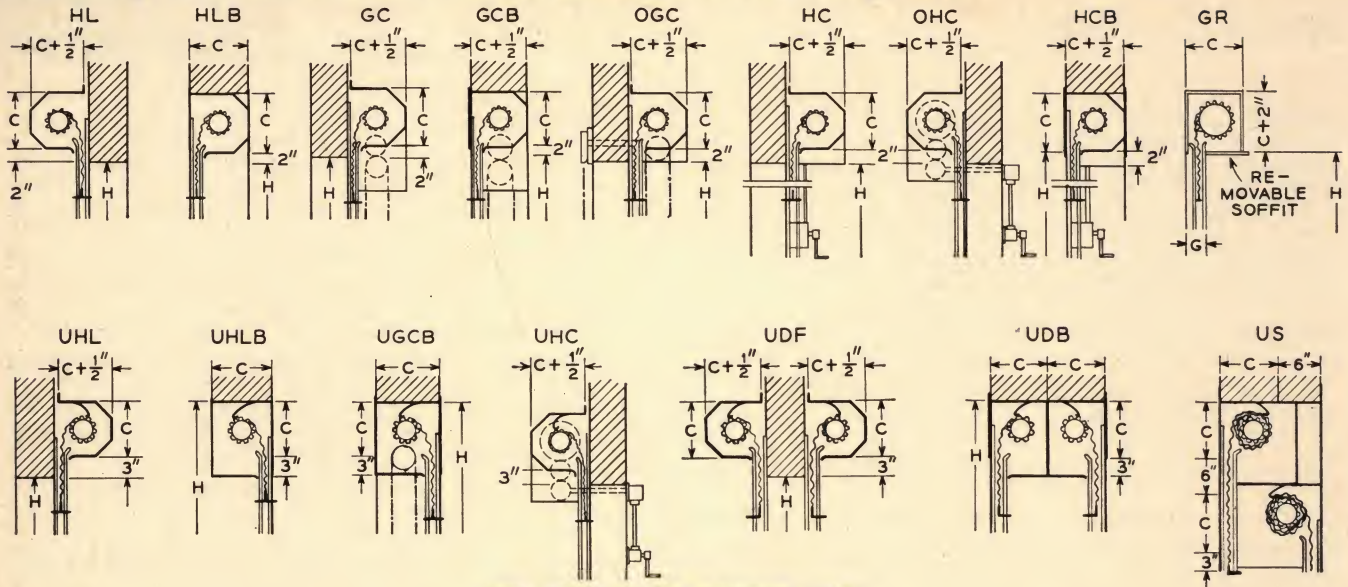
Hood—Shall be 20 ga. aluminum with reinforced beads and edges. (Locking shall be by slide bolts on bottom bar arranged for padlocking.)

Finish—Aluminum shutters shall be buffed and satin aluminized.

Frame—(if required) Shall be of 14 ga. stainless steel for bucks and sill and 20 gauge stainless steel for covers. Frames shall overlap the opening 3" all around with $\frac{1}{2}$ " return bends back to wall. Welds shall be smooth ground. Finish shall be #4 finish.

Guarantee—Shall be for a one year period against defective materials or workmanship.

required clearances and methods of operation for rolling metal commercial doors, fire doors, shutters and grilles



TYPE, OPERATION AND MOUNTING CHART

Type	Operation	Mounting	Clearances	Jamb Style	Head Backset	Guide Recess	Locking
HL	Handle Lift	Face of Wall	Chart Z	1	Not required	Not required	Slide bolts on Bottom Bar arranged for padlocking. Slide bolts on Bottom Bar arranged for padlocking. Provision for padlocking hand chain. Cylinder lock available. Provision for padlocking the crank box. Cylinder lock or slide bolts available. Provision for padlocking the crank box. Cylinder lock or slide bolts available. Same as GC. Same as HL. Same as HL. Same as GC. Same as HL. Same as HL. Same as HL. Same as HL. Same as HL. Slide bolts 3'6" up constructed for padlocking and operable both sides of grille. Cylinder locking available. Padlocking in open position available.
HLB	Handle Lift	Between Jambs	Chart W	6	Not required	Not required	
GC	Gear Chain	Face of Wall	Chart Y	1	Not required	Not required	
OGC	Gear Chain	Face of Wall	Chart Y	1	Not required	Not required	
HC	Hand Crank	Face of Wall	Chart Y	1	Not required	Not required	
HCB	Hand Crank	Between Jambs	Chart Y	2	Not required	Not required	
OHC	Hand Crank	Face of Wall	Chart X	1	Not required	Not required	
GCB	Gear Chain	Between Jambs	Chart X	2	Not required	Not required	
HCB	Hand Crank	Between Jambs	Chart X	2	Not required	Not required	
UHL	Handle Lift	Face of Wall	Chart V	1	Not required	Not required	
UHLB	Handle Lift	Between Jambs	Chart U	2	8	Required	
UGC	Gear Chain	Face of Wall	Chart V	1	Not required	Not required	
UHC	Hand Crank	Face of Wall	Chart V	1	Not required	Not required	
UGCB	Gear Chain	Between Jambs	Chart V	3	8	Required	
UHC	Hand Crank	Between Jambs	Chart V	3	8	Required	
UDF	Handle Lift	Face of Wall	Chart V	5	Not required	Not required	
UDB	Handle Lift	Between Jambs	Chart U	6	8	Required	
US	Handle Lift	Between Jambs	Chart U	6	8	Required	
GR	Handle Lift	Between Jambs or Face of Wall	Chart T	9-10	Not required	Not required	

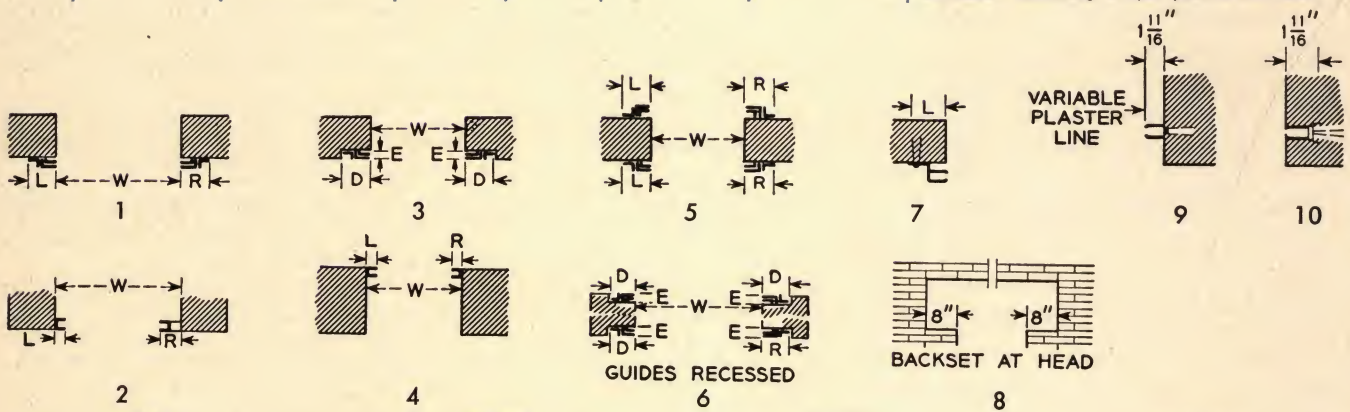


CHART T					CHART U					CHART V					CHART W						
W	H	C	G		W	L	R	D	E	H	C	W	L	R	H	C	W	L	R	H	C
To 40'	0	to 4'-6"	13"	2 3/8"	To 4'	3"	3"	6"	3 1/2"	To 4'	14"	To 4'	8"	8"	To 4'	14"	To 12'	3"	3"	To 7'	14"
	4'-6"	to 6'-0"	14"	2 3/8"	To 6'	3"	3"	6"	4"	To 6'	16"	To 6'	8"	8"	To 6'	16"	To 10'	3"	3"	To 10'	15"
	6'-0"	to 10'-0"	15"	2 7/8"	To 8'	3"	3"	7"	4 1/2"	To 8'	18"	To 8'	8"	8"	To 8'	18"	To 10'	3"	3"	To 10'	15"
	10'-0"	to 14'-0"	16"	3 1/2"	To 10'	3"	7"	7"	4 1/2"	To 10'	18"	To 10'	8"	8"	To 10'	18"	To 12'	3"	3"	To 12'	16"
	14'-0"	to 16'-0"	18"	4 1/2"	To 12'	3"	7"	7"	4 1/2"	To 12'	20"	To 12'	9"	9"	To 12'	20"					

CHART X					CHART Y					CHART Z				
W	L	R	H	C	W	L	R	H	C	W	L	R	H	C
To 8'	3"	7"	To 10'	14"	To 8'	6"	7"	To 10'	14"	To 10'	6"	7"	To 7'	14"
To 12'	3 1/2"	7"	To 12'	15"	To 12'	6"	8"	To 12'	15"	To 15'	6"	7"	To 10'	15"
To 16'	3 1/2"	7"	To 16'	16"	To 16'	7"	9"	To 16'	16"	To 12'	7"	7"	To 12'	16"
To 20'	4"	7"	To 20'	18"	To 20'	7"	10"	To 20'	18"					
					To 24'	8"	10"	To 24'	20"					

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